

IFW

PATENT  
81754.0110

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Takayoshi OBINATA

Serial No: 10/801,107

Filed: March 15, 2004

For: Semiconductor Wafer, Semiconductor Device and Method for Manufacturing Same, Circuit Board and Electronic Apparatus

Art Unit: 2812

Examiner: Not Assigned

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450, on  
June 1, 2005

Date of Deposit

Shindale Ferguson

Name

Signature

June 1, 2005

Date

TRANSMITTAL OF POWER OF ATTORNEY

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed is the following:

- An executed Power of Attorney (PTO/SB/80)
- Statement Under 37 CFR 3.73(b) (PTO/SB/96)
- A copy of the Assignment
- A copy of the Recordation Form Cover Letter
- A copy of the Notice of Recordation of Assignment Document

The Commissioner is authorized to charge any underpayment to our Deposit Account No. 50-1314. A copy of this letter is enclosed.

Respectfully submitted,

Date: June 1, 2005

By: Lawrence J. McClure

Lawrence J. McClure

Registration No. 44,228

Attorney for Applicant(s)

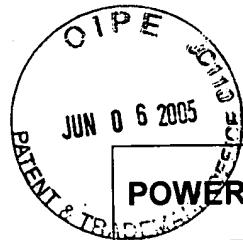
HOGAN &amp; HARTSON L.L.P.

500 South Grand Avenue, Suite 1900

Los Angeles, California 90071

Phone: 213-337-6700

Fax: 213-337-6701

**POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO**

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:

Practitioners associated with the Customer Number:

26021

OR

Practitioner(s) named below:

Name	Registration Number		Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records of assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:

The address associated with Customer Number:

26021

OR

Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Fax

Assignee Name and Address:

Seiko Epson Corporation  
3-5, Owa 3-Chome, Suwa-shi  
Nagano-ken, 392-8502 Japan

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

**SIGNATURE of Assignee of Record**

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	April 11, 2005
Name	Masataka KAMIYANAGI	Telephone	
Title	Director		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 122 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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JUN 06 2005

PTO/SB/96 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

### STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Takayoshi OBINATA

Application No./Patent No.: 10/801,107 Filed/Issue Date: March 15,2004

Entitled: Semiconductor Wafer, Semiconductor Device and Method for Manufacturing Same, Circuit Board, and Electronic Apparatus

SEIKO EPSON CORPORATION, a CORPORATION  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1.  the assignee of the entire right, title, and interest; or
2.  an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

A.  An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

B.  A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

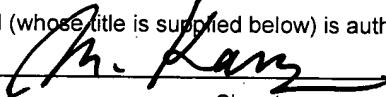
1. From: \_\_\_\_\_ To: \_\_\_\_\_  
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Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
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The document was recorded in the United States Patent and Trademark Office at  
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3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet.

Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

  
Signature

Masataka Kamiyangi, Director

Printed or Typed Name

February 1, 2005

Date

Telephone Number

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



# UNITED STATES PATENT AND TRADEMARK OFFICE

SEIKO EPSON | TMS

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

81754.0110

FEBRUARY 01, 2005

PTAS



\*102805119A\*

HOGAN & HARTSON LLP.  
ANTHONY J. ORLER  
500 S. GRAND AVENUE  
STE. 1900  
LOS ANGELES, CA 90071

## UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/02/2004

REEL/FRAME: 015631/0978

NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNEE'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNEE:  
OBINATA, TAKAYOSHI

DOC DATE: 07/23/2004

ASSIGNEE:  
SEIKO EPSON CORPORATION  
4-1 NISHI-SHINJUKU 2-CHOME  
SHINJUKU-KU, TOKYO, JAPAN

SERIAL NUMBER: 10801107

FILING DATE: 03/15/2004

PATENT NUMBER:

ISSUE DATE:

TITLE: SEMICONDUCTOR WAFER, SEMICONDUCTOR DEVICE AND METHOD FOR  
MANUFACTURING SAME, CIRCUIT BOARD, AND ELECTRONIC APPARATUS

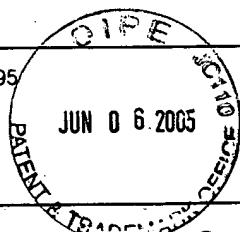
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015631/0978 PAGE 2

DIANE RUSSELE, PARALEGAL  
ASSIGNMENT DIVISION  
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RE:

08-04-2004

TER

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

102805119

Attorney Docket No.: 81754.0110

To the Assistant Commissioner for Patents: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Takayoshi OBINATA

Additional name(s) of conveying party(ies) attached?  Yes  No

## 3. Nature of conveyance:

 Assignment

Execution Date: July 23, 2004

## 2. Name and address of receiving party(ies):

SEIKO EPSON CORPORATION  
4-1, Nishi-shinjuku 2-chome,  
Shinjuku-ku, Tokyo, Japan

G. J. OY

Additional name(s) & address(es) attached?  Yes  No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) 10/801,107

B. Patent No.(s)

Additional numbers attached?  Yes  No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Anthony J. Orler, Esq.  
HOGAN & HARTSON L.L.P.  
500 South Grand Avenue, Suite 1900  
Los Angeles, CA 90071

6. Total number of applications and patents involved: [ 1 ]

7. Total fee (37 CFR 3.41) \$40.00

 Enclosed  
 Authorized to be charged to deposit account

## 8. Deposit account number:

50-1314

(Attach duplicate copy of this page if paying by deposit account)

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FINANCIAL SECTION

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## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true copy of the original document.

Anthony J. Orler

Date: July 30, 2004

OMB No. 0651-0011 (exp. 4/94)

Mail documents to be recorded with required cover sheet information to:

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 Director of the U.S. Patent and Trademark Office  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Seiko Epson Ref. No.: J0009295US01

## 譲渡証 (Translation/日本語訳)

下記に署名した私／私達、

太田万喜は、

ある聲明を割出し、これについて合衆国特許出願は

- ここに私／私達により署名され、  
 \_\_\_\_\_に私／私達により（それぞれ）署名され、  
 2004年3月15日に出願され、出願番号10/801,107が交付され、  
PCT国際出願 \_\_\_\_\_として \_\_\_\_\_に出願され。

### その発明は

半導体ウエハ、半導体装置及びその製造方法、回路基板並びに電子機器

という名称である。そして、ここにその受領を認める対価で：私／私達は、当該発明／出願について、合衆国とその属領及び全ての外国に於ける全面的かつ独占的な権利：合衆国とその属領及び全ての外國に於いて発行される特許証に關わる全ての権利、所有権、利益；一部繼續出願、継続出願、分割出願、差替え出願、再発行出願、特許期間延長等、合衆国とその属領及び全ての外国に於いて既に出願されたか若しくは今後出願される特許に關わる全ての権利；そして、国際条約、同盟、契約、法令、協定（特許権を含む）に基づく全ての優先権を伴う一切の権利；を、日本国東京都新宿区西新宿2丁目4番1号に住所を有するセイコーエンジン株式会社、その後繼者、譲受人及び法定代理人に対して、完却、譲渡、移転するものとする。

さらに、私／私達は、セイコー・エプソン株式会社（以下譲受人と言ふ）が単数ないしは複数の当該発明（以下当該発明という）に関する特許権を、自己の名により、合衆国とその属領及び今に開わる特許権を、下記に於けること；またこの譲渡証の外団において出願し、特許を登けること；またこの譲渡証の意図と目的を誠実に実行することを求められた場合、下記に署名した私／私達が、当該譲受人、その後継者、その被譲渡者、及び法定代理人の費用負担にて、一部継続出願、継続出願、分割出願、差替え出願、再発行出願、特許期間延長等を行い、合法的宣誓書、譲渡証、委任状等の書類を作成し、あらゆる法的または準法的訴訟手続に於いて証言を行うこと；当該発明とその経緯に開連して、下記に署名した私／私達が知り得た全ての事実を、当該譲受人、後継者、被譲渡者、及び法定代理人に連絡すること；そして当該譲受人、後継者、被譲渡者、及び法定代理人が、当該発明の特許権の適切な保護、維持、権利行使するためには望ましいと考慮すること、また、当該発明に関する特許出願に際し、当該譲受人、後継者、被譲渡者、及び法定代理人に対して法的権限を付与することが望ましいと考慮することについて、可能な限り行うことを承諾する。

## Assignment

For good and valuable consideration, the receipt of which is  
hereby acknowledged, I/WE, the undersigned,

Takayoshi OBINATA

who have created a certain invention for which an application for  
United States Letters Patent

- executed by ME/US on even date herewith,  
 executed by ME/US on \_\_\_\_\_, (respectively),  
filed on March 15, 2001 and assigned Serial No.  
11/A01 107.  
 filed as International Application No. \_\_\_\_\_ filed on

and entitled:

SEMICONDUCTOR WAFER, SEMICONDUCTOR DEVICE AND  
METHOD FOR MANUFACTURING SAME, CIRCUIT BOARD, AND  
ELECTRONIC APPARATUS

Du hereby sell, assign and transfer to Seiko Epson Corporation, a corporation of Japan, having a place of business at 4-1, Nishi-shinjuku 2-chome, Shinjuku-ku, Tokyo, Japan, its successors, assigns, and legal representatives, the full and exclusive right to said invention and said application and to any and all inventions described in said application for the United States, its territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, its territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereto, and all other applications for Letters Patent relating thereto which have been or shall be filed in the United States, its territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions, agreements, acts, and treaties;

Agree that Seiku Eysen Corporation, hereinafter referred to as Assignee, may apply for and receive Letters Patent for said invention and said inventions, hereinafter referred to as said invention, in its own name, in the United States, its territorial possessions, and all foreign countries; and that, when requested to carry out in good faith the intent and purpose of this assignment at the expense of said Assignee, its successors, assigns and legal representatives, the undersigned will execute all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, execute all rightful oaths, assignments, powers of attorney and other papers, testify in any legal or quasi legal proceedings; communicate to said Assignee, its successors, assigns or legal representatives all facts known to the undersigned relating to said invention and the history thereof, and generally do everything possible which said Assignee, its successors, assigns, or legal representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said invention and for vesting title to said invention and all applications for patents on said invention in said Assignee, its successors, assigns, or legal representatives; and

Sciko Epson Ref. No.: J0009295US01

そして、私／私達は、この書面により譲渡された権利や財産に影響する、如何なる譲渡、授権、抵当権、ライセンス等その他の協定も他の第三者との間で行つていいないこと：下記に署名した私／私達によつて、この書面に記載されている権利が所有されていることを、当該譲受人、後継者、被譲渡者、及び社外代理人に対して譲り受けたものである。

さらに、下記に署名した私／私達はこの譲渡書は英語の部分の表現によつてのみ解釈されることに同意する。

上記を証明するため、私／私達は下記日付で署名する。

I/WE further agree that this Assignment is to be construed solely according to the terms of the English language portions thereof.

IN TESTIMONY WHEREOF I/WE have hereunto set MY/OUR signature seal on the date indicated below.

第一共同発明者の署名

人日方 孝好

発明者の署名

大日方 孝好

日付

Full name of sole or first inventor

Takayoshi OBINATA

Date

第二共同発明者の署名（いる場合）

第二共同発明者の署名

2004年 7月 23日

Takayoshi Obinata

7/23/2004

Full name of second joint inventor, if any

第三共同発明者の署名（いる場合）

第三共同発明者の署名

日付

Full name of third joint inventor, if any

Date

第四共同発明者の署名（いる場合）

第四共同発明者の署名

日付

Full name of fourth joint inventor, if any

Date

第五共同発明者の署名（いる場合）

第五共同発明者の署名

日付

Full name of fifth joint inventor, if any

Date

第六共同発明者の署名（いる場合）

第六共同発明者の署名

日付

Full name of sixth joint inventor, if any

Date

第七共同発明者の署名（いる場合）

第七共同発明者の署名

日付

Full name of seventh joint inventor, if any

Date

第八共同発明者の署名（いる場合）

第八共同発明者の署名

日付

Full name of eighth joint inventor, if any

Date